

Title (en)

DEVICE FOR TRAVERSING VESSEL OCCLUSIONS

Title (de)

VORRICHTUNG ZUR TRAVERSIERUNG VON GEFÄSSOKKLUSIONEN

Title (fr)

DISPOSITIF POUR TRAVERSER DES OCCLUSIONS DE VAISSEAU

Publication

**EP 2533840 B1 20190410 (EN)**

Application

**EP 11714102 A 20110208**

Priority

- US 30266910 P 20100209
- IB 2011000401 W 20110208

Abstract (en)

[origin: US2011196384A1] An apparatus, system and method for re-canalization or opening a passage through an occlusion in a blood vessel is provided. The apparatus and method, which are appropriate for both cardiovascular as well as peripheral vessels, use a pulling member and a spring element, for example a compression spring, to oscillate a vibratable member, and the system of the invention includes the apparatus and a control unit to permit the frequency or amplitude of oscillation of the vibratable member to be adjusted. Also provided is a method for oscillating a vibratable member using a pulling member and a spring element. The apparatus and system are useful not only for penetrating a total or partial occlusion, but also to improve deliverability of a catheter through a partially occluded vessel or a tortuous vessel.

IPC 8 full level

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CPC (source: EP RU US)

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**A61B 2017/22094** (2013.01 - EP US); **A61B 2017/925** (2013.01 - EP US); **A61B 2017/928** (2013.01 - EP US); **A61M 25/04** (2013.01 - EP US)

Citation (examination)

- US 5626593 A 19970506 - IMRAN MIR A [US]
- US 5989208 A 19991123 - NITA HENRY [US]

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DOCDB simple family (publication)

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CA 2789392 A1 20110818; CA 2789392 C 20161011; CA 2940004 A1 20110818; CA 2940004 C 20190604; EP 2533840 A1 20121219;  
EP 2533840 B1 20190410; EP 3508244 A1 20190710; ES 2720125 T3 20190718; IL 221217 A0 20121031; IL 221217 A 20170131;  
IL 247546 B 20180131; JP 2013518693 A 20130523; JP 2014166598 A 20140911; JP 5668195 B2 20150212; JP 5704378 B2 20150422;  
RU 2012132704 A 20140320; RU 2014148109 A 20160620; RU 2542775 C2 20150227; RU 2618650 C2 20170505;  
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